

# Airport and Aviation Security



## Current Threats, Challenges, Opportunities

FLYSEC Info Day  
Brussels, 28 June 2018

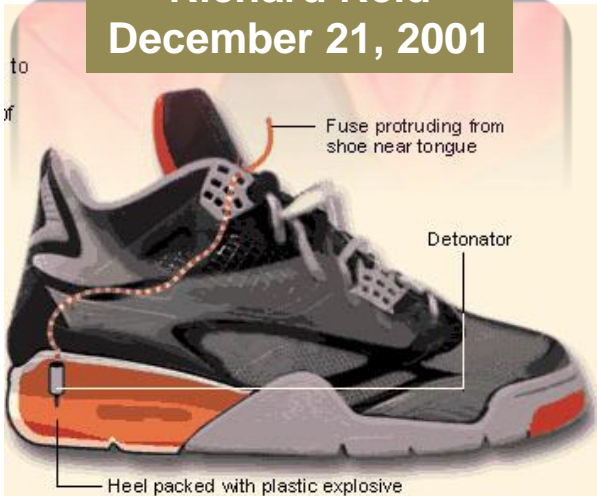


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# THREE FORMATIVE EVENTS IN AVSEC, AFTER 9/11

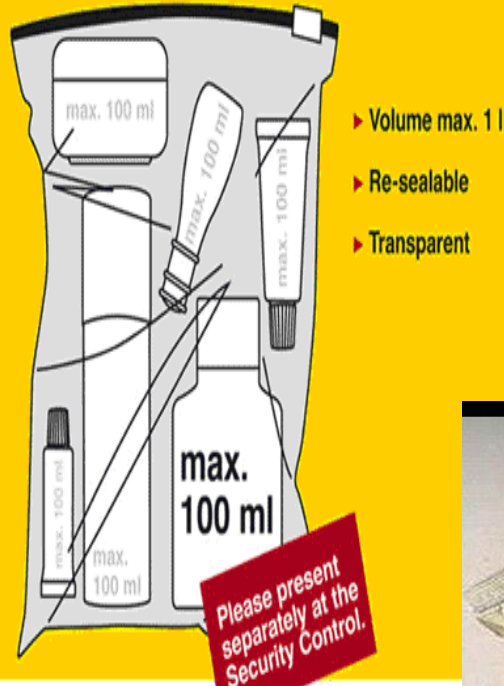


**Richard Reid**  
December 21, 2001



## New regulations for hand luggage

There are restrictions on liquids which can be taken into the cabin on flights originating within the EU



**LAG PLOT, UK**  
August 2006



**Abdul Farouk Abdulmutallab**  
December 25, 2009



# THREATS TO AVIATION & AIRPORTS

- Infiltration of IEDs exploiting weaknesses in airline / airport security
- Infiltration of terrorists by circumvention of the vetting process and increased insider threat
- Threat to landside areas, terminals, crowds
- Unconventional modes of operation: PEDs, LAGs, Drones, Powders...
- Home-grown terrorism, returning Jihadists, (self-) radicalized individuals
- Extreme political right wing or left wing
- Environmentalism and other individual issues



- **The Jihadist terrorism threat in Europe remains high. The Islamic State (IS) and al-Qaeda** possess the intent, capability and resources to carry out terrorist attacks in Europe.
- **Attacks:** *planned, spontaneous, relatively complex, multiple simultaneous targets*
- **Arsenal:** *vehicles, rifles, bladed weapons, IED*  
*IEDs and IIDs consisting of readily available products*
- **Targets:** *individuals, crowds; hard targets, soft targets*  
*Targets with international character for attracting worldwide media attention*
- **Attackers:** *foreign, local, citizens*  
*Organized cells or lone wolves*  
*Increasing number of jihadi returnees strengthens European cells*  
*Increasing operational role for women, young adults, and children*
- **Migration** *from conflict zones will continue; IS exploits the flow of refugees*  
*Recruitment of Muslim immigrants in Europe by IS*
- **Right-wing** *extremists, anarchists, left-wing extremists*  
*Probability of attacks on refugees and ethnic minorities*

# Challenges of Aviation & Airport Security

- Integration of new security systems and technologies - impact on recruitment, training, work force structure
- Improvement of passenger experience, customer service, while maintaining highest security levels.
- The human factor in a changing and demanding work environment and society
- Insider threat mitigation
- Staff training and development: new concepts and methods
- High fluctuation of security and of airport staff
- Work conditions of security staff
- Maintenance of alertness, awareness, emergency preparedness



**HUMAN  
FACTOR**



# Avsec Focus, Outlook & Opportunities

- High terrorism alert levels in all European countries. Civil aviation, airports and flights to the US are targets of terrorism.
- Intelligence - enhanced gathering and sharing
- Legislation and regulation
- Upgrade of checkpoint processes and equipment
- Technological advances: body scanners, Smart CCTV, ETD, biometrics;
- Data-driven security, use of passenger information (PNR)
- Canine security (cargo)
- Enhanced airside and landside security
- The Human Factor in security: crowd- and behavior observation; Interviewing, passenger differentiation and cognitive engagement methods



# The FUTURE?

Risk-based screening

Risk-based differentiation (data)

Security scanners

Dynamic adjustment algorithms

Standoff

Optimized secondary search

Multi-view X-ray

Computed tomography

Virtual laptop separation

Intelligent equipment – automated decision

Checkpoint design

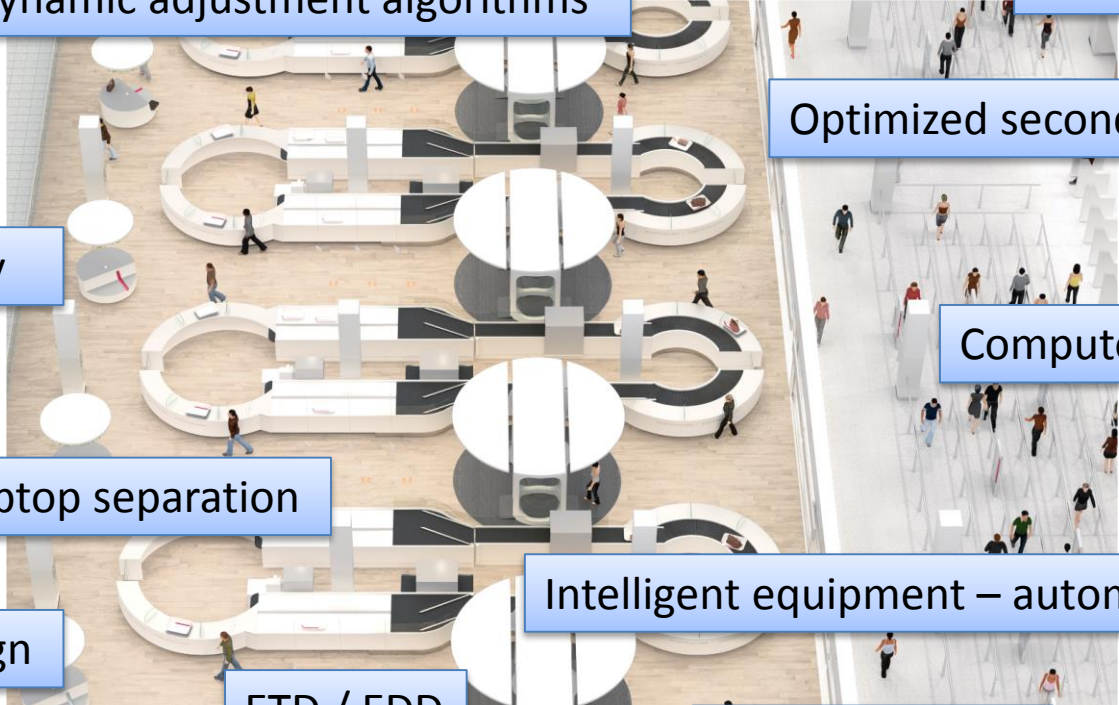
ETD / EDD

Unpredictability

Random measures

Passenger communication and feedback

Centralized image processing



**Q & A**